

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1-82. (Cancelled)

83. (Currently amended) A nucleic acid including:

(a) a splice acceptor site;

(b) a cassette including in any order a negative selection marker, a positive selection marker, and a reporter gene, wherein said negative selection marker, said positive selection marker, and said reporter gene are ~~operably linked to integrated into the genome of at least one cell and responsive to one or more endogenous regulatory elements in said at least one cell~~ ~~regulatory elements of a host cellular gene~~ after said nucleic acid is contacted with a cell.

84. (Previously presented) The nucleic acid of claim 83, further comprising an internal ribosome entry site.

85. (Previously presented) The nucleic acid of claim 84, including in 5' to 3' orientation,

(a) said splice acceptor site;

(b) said negative selection marker and said positive selection marker;

(c) said internal ribosome entry site; and

(d) said reporter gene; or

(a) said splice acceptor site;

(b) said internal ribosome entry site; and

(c) said negative selection marker, said positive selection marker, and said reporter gene, in any order; or

(a) said splice acceptor site;

(b) said reporter gene;

(c) said internal ribosome entry site; and

(d) said negative selection marker and said positive selection marker; or

(a) said splice acceptor site;

(b) said positive selection marker and said reporter gene, in any order;

(c) said internal ribosome entry site; and

(d) said reporter gene; or

(a) said splice acceptor site;

(b) said negative selection marker and said reporter gene, in any order;

(c) said internal ribosome entry site; and

(d) said positive selection marker.

86. (Previously presented) The nucleic acid of claim 83, 84, or 85 further comprising a nucleic acid segment encoding a transactivator polypeptide, wherein said nucleic acid segment encoding a transactivator polypeptide is incorporated in said cassette of said nucleic acid molecule.

87. (Previously presented) The nucleic acid of claim 83, 84, or 85 further comprising one or more recombinase signal sequences.

88. (Previously presented) The nucleic acid of any one of claims 83, 84, or 85, wherein said negative selection marker is selected from the group consisting of Hprt, gpt,

HSV-tk, diphtheria toxin, ricin toxin, and cytosine deaminase.

89. (Previously presented) The nucleic acid of any one of claims 83, 84, or 85, wherein said positive selection marker is neomycin resistance, hygromycin resistance, histidinol resistance, xanthine utilization, Zeocin resistance, bleomycin resistance, or the presence of green fluorescence protein.

90. (Previously presented) The nucleic acid of any one of claims 83, 84, or 85, wherein the reporter gene encodes an enzyme.

91. (Previously presented) The nucleic acid of claim 90, wherein said enzyme is selected from the group consisting of secreted alkaline phosphatase, β -galactosidase, luciferase, and green fluorescent protein.

92. (Previously presented) A vector that includes the nucleic acid of claim 83, 84, or 85.

93. (Previously presented) The vector of claim 92, wherein said vector is a retroviral vector.

94. (Previously presented) The vector of claim 92, further including an integration sequence.

95. (Previously presented) A cell including the vector of claim 92.

96. (Previously presented) The cell of claim 95, wherein said cell is responsive to one or more stimulatory agents.

97. (Currently amended) A vector comprising a nucleic acid segment that includes a positive selection marker, a negative selection marker, and a nucleic acid encoding a transactivator polypeptide, wherein said positive selection marker, and said negative selection marker, and said nucleic acid encoding said transactivator polypeptide are operably linked integrated into the genome of at least one host cell and responsive to one or more endogenous regulatory elements in said at least one cell to a host cellular gene after said vector is contacted with a cell, and wherein said nucleic acid segment encoding said transactivator polypeptide is incorporated in said vector.

98. (Previously presented) The vector of claim 97, wherein said cassette further comprises an internal ribosome entry site.

99. (Previously presented) The vector of claim 97, wherein said negative selection marker is selected from the group consisting of Hprt, gpt, HSV-tk, diphtheria toxin, ricin toxin, and cytosine deaminase.

100. (Previously presented) The vector of claim 97, wherein said positive selection marker is neomycin resistance, hygromycin resistance, histidinol resistance, xanthine utilization, Zeocin resistance, bleomycin resistance, or the presence of green fluorescence protein.

101. (Previously presented) The vector of claim 97, wherein said nucleic acid segment further comprises a reporter gene.

102. (Previously presented) The vector of claim 101, wherein said reporter gene is operably linked to a host cellular gene after said vector is contacted with a cell.

103. (Previously presented) The vector of claim 101, wherein the reporter gene

encodes an enzyme.

104. (Previously presented) The vector of claim 103, wherein said enzyme is selected from the group consisting of secreted alkaline phosphatase, β -galactosidase, luciferase, and green fluorescent protein.

105. (Previously presented) The vector of claim 97, wherein said transactivator polypeptide is a tetracycline regulator unit (tTA).

106. (Previously presented) The vector of claim 97, further including one or more recombinase signal sequences.

107. (Previously presented) A cell including the vector of claim 97.

108. (Previously presented) The cell of claim 107, wherein said cell is responsive to one or more stimulatory agents.

109. (Currently amended) A cell including (i) a cassette which includes a positive selection marker, a negative selection marker, and a nucleic acid segment encoding a transactivator polypeptide, wherein said cassette is integrated into the genome of the cell and said positive selection marker, negative selection marker, and nucleic acid segment encoding a transactivator polypeptide are responsive to one or more endogenous regulatory elements in said cell and (ii) a nucleic acid which includes a promoter operably linked to a responsive element that is directly responsive to said transactivator polypeptide.